

## REMARKS

The claims 15, 45, 46 and 48 have been amended to referred to the elected sequence, SEQ ID NO:25. New claim 63 depends from claim 45 and also refers to SEQ ID NO:25. No new matter has been added.

### Claim Objections

The Examiner objected to claims 15, 48 and 51 for referring to "an ancestor" or "a COT" protein, and suggested that a definite article be used instead. Claims 48 and 51 have been amended. Claim 15 has been amended such that it no longer includes the objected to language.

### Rejections Under 35 U.S.C. §112, second paragraph

The Examiner rejected claims 45-51 as indefinite for using relative terms. Claims 47 and 49-51 have been cancelled. Claims 45, 46 and 48 have been amended to such that they no longer include the objected to terms. In view of this, Applicant respectfully requests that this rejection be withdrawn.

### Rejections Under 35 U.S.C. §112, first paragraph (written description)

Claims 15, 19-22, 25-30 and 45-51 were rejected as failing to meet the written description requirement.

The currently pending claims refer to nucleic acid sequences that are at least 70% identical to SEQ ID NO:25. As explained in the specification, SEQ ID NO:25 is an example of a COT sequence. The claimed nucleic acid sequences are defined by a particular percent identity to a defined sequence. Thus, the present claims meet the written description requirement of 35 U.S.C. §112, first paragraph, and Applicant respectfully requests that this rejection be withdrawn.

Rejections Under 35 U.S.C. §112, first paragraph (enablement)

Claims 15, 19-22, 25-30 and 45-51 were rejected as not enabled. However, the Examiner stated that the were enabled for specific COT sequences such as SEQ ID NO:25.

In making this rejection, the Examiner discusses the challenges associated with the development of an HIV vaccine. However, the present claims are not drawn to vaccine compositions or methods. Instead the claims are drawn to nucleic acid molecules and vectors as well as cell harboring such nucleic acid molecules and vectors. The nucleic acid and vectors have other uses, for example, diagnostic uses (see paragraph 0025 of the published application.

The currently pending claims refer to nucleic acid sequences that are at least 70% identical to SEQ ID NO:25. Those skilled in the art are capable of using such nucleic acid molecules for diagnostic uses. In view of this, Applicant respectfully requests that this rejection be withdrawn.

Rejections Under 35 U.S.C. §102(b)

Claims 15, 19-22, 25-30 and 45-51 were rejected as anticipated by Shriver (WO 98/34640), specifically SEQ ID NO:1 of Shriver.

In referring to SEQ ID NO:25, the Examiner stated that “given the fact that the protein encoded by the COT sequence SEQ ID NO:25 has more than 99.4% identity to Shiver’s HIV gag protein..., the COT viral sequence ID NO:25 is interpreted as a HIV gag variant.” The currently pending claims refer to nucleic acid sequences that are at least 70% identical to SEQ ID NO:25. They are not drawn to an amino acid sequence encoded by SEQ ID NO:25. Thus, whether or not SEQ ID NO:25 is viewed as an HIV gag variant, it does not appear that Shriver (WO 98/34640) anticipates the currently pending claims. In view of this, Applicant respectfully requests that this rejection be withdrawn

Enclosed is a Petition for Extension of Time and authorization to charge deposit account 06-1050 for the required fee. Please apply any other charges or credits to deposit account 06-1050.

Applicant : Mullins et al.  
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Respectfully submitted,

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